REMARKS

Claims 1, 3-20 are amended and Claims 51-74 are added. As a result, Claims 1-20 and 51-74 remain pending in the application.

Objection to the Drawings

Paragraph 125 and paragraph 126 are amended to address the issues associated with reference characters 905 and 920. A new Figure 29 is provided to address the issues related to reference characters 909. Paragraph 122 is amended to address the issues associated with reference characters 810 and 820.

Objection to the Abstract

A new Abstract is provided.

Rejection of Claims 1-9 and 11-13 under 35 U.S.C. 102(b)

The Examiner rejects Claims 1-9 and 11-13 as anticipated by U.S. Patent 5,200,051 (Cozzette).

Independent Claim 1 is directed to a method of detecting the presence or measuring the quantity of a target analyte in a sample reagent. The method includes contacting a microfabricated electrochemical biosensor with the sample reagent. The microfabricated biosensor includes a substrate and at least two electrically conductive electrodes fabricated on the substrate. Each of the electrical conductive electrodes "consists of a single layer of an electrically conductive material."

Cozzette discloses a variety of biosensors that include a reference electrode and an indicator electrode. In each of these embodiments, at least one of the electrodes is constructed from a plurality of materials. See Figures 2, 3, 7A, 7B, 8A and 8B and the associated text. Accordingly, Cozzette does not teach a biosensor having a plurality of electrodes that each consist "of a single layer of an electrically conductive material" as is specified in Claim 1. Because Cozzette does not teach each element of Independent Claim 1, the rejection under 35 U.S.C. 102(b) should be withdrawn.

Rejection of Claims 1-2, 10 and 14-20 under 35 U.S.C. 103(a)

The Examiner rejects Claims 1-2 and 10 as unpatentable over Cozzette in view of U.S. Patent 5,403,700 (Heller). The Examiner also rejects Claims 1-2 and 14-20 as unpatentable over Cozzette in view of U.S. Patent 5,200,051 (Han).

A prima facie case of obviousness is not established unless, "there (is) some suggestion or motivation ... to modify the references or combine reference teachings." See MPEP 706.02(j). As noted above, Cozzette does not teach a biosensor with a plurality of electrodes that each consists of a single layer of an electrically conductive material as is claimed. Neither Han nor Heller provide a motivation for modifying the biosensors of Cozzette so each electrodes consists of a single layer of electrically conductive material. As a result, the prima facie case of obviousness is not established and the rejection should be withdrawn.

Further, the Cozzette biosensor will not function as disclosed if the electrodes are modified so each electrodes consists of a single layer of electrically conductive material. Cozzette's biosensors are operated by measuring the potential difference between an indicator electrode and a reference electrode. See column 22, line 52-54; column 23, line 5-8; column 23, line 32-35; column 29, lines 41-42; column 54, lines 48-49; etc. The potential at the reference electrode results from the interaction of the plurality of materials in the reference electrode. This potential is a well known feature of the exemplary silver/silver-chloride reference electrode employed by Cozzette. The current application discusses the multi-layer electrode construction employed by Cozzette at paragraph 6, lines 6-10; paragraph 7, lines 8-9; paragraph 65, lines 1-4 and paragraph 176.

If Cozzette's reference electrodes are formed of a single layer of material, there is no potential associated with the reference electrode. Without a potential at the reference electrode, there is no potential against which to measure the potential at the indicator electrode. As a result, the potential of the indicator electrode is free to "float" and the potential measurements will not provide meaningful results. See column 23, lines 5-8. Accordingly, modifying Cozzette's biosensor with electrodes that each consist of a single electrically conductive material provides an expectation of failure. Neither Han nor Heller provides any teaching that overcomes this expectation of failure. However, a prima facie case of obviousness is not established unless "there (is) a reasonable expectation of success" when examining Cozzette in view of Heller or when examining Cozzette in view of Han. See MPEP 706.02(j). Because neither Han nor Heller

provides any teaching that overcomes the above expectation of failure, the cited of references do not provide the required expectation of success and the rejection should be withdrawn.

CONCLUSION

In light of the Amendments and arguments set forth above, Applicants believe they are entitled to a letters patent. The Examiner is encouraged to telephone the undersigned with any questions.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: April 28, 2003 .

Tu Nguyen *4/28/03*
Date